

REMARKS

Applicant has now had an opportunity to carefully consider the Office Action, and respectfully submits that the subject application is now in condition for allowance based upon the amendments presented herein and the following remarks.

Status of Claims

The subject application was originally filed with 29 claims. In a Preliminary Amendment dated December 13, 2005, Applicant cancelled claims 1-29 and added new claims 30-58. In this Amendment, Applicant has cancelled claims 33 and 47 and amended claims 30, 31, 38, 39, 42, and 56. Upon entry of this Amendment, claims 30-32, 34-46, and 48-58 will be pending in the subject application.

Summary of Office Action

In the Office Action dated September 14, 2007, the Examiner:

- 1) rejected claims 30-32, 34, 35, 37-40, 42-44, 46, 48-50, 52, and 55-57 under 35 U.S.C. § 102(b) as being anticipated by GB 2,265,959 issued to Pardy (“Pardy”);
- 2) rejected claims 33 and 47 under 35 U.S.C. § 103(a) as being unpatentable over Pardy in view of U.S. Patent No. 7,140,406 issued to Gustafsson (“Gustafsson”);
- 3) rejected claims 36 and 51 under 35 U.S.C. § 103(a) as being unpatentable over Pardy in view of U.S. Patent No. 5,746,255 issued to Walsh et al. (“Walsh”); and
- 4) rejected claims 34, 41, 45, 48, 53, and 58 under 35 U.S.C. § 103(a) as being unpatentable over Pardy in view of U.S. Patent No. 6,176,147 issued to Ozeki (“Ozeki”).

35 U.S.C. § 102(b) Rejection of Claims 30-32, 34, 35, 37-40, 42-44, 46, 48-50 and 55-57 Based on Pardy

As discussed above, claims 30-32, 34, 35, 37-40, 42-44, 46, 48-50, 52, and 55-57 were rejected under 35 U.S.C. § 102(b) as being anticipated by Pardy. A claim can only be anticipated if each and every claim limitation is disclosed by a single prior art reference. For at least the following reasons, Applicant traverses this rejection.

Claims 30-32, 34, 35, 37-40 , 42-44, 46, 48-50, 52, and 55

Independent claims 30 and 42 have been amended to require that “the peripheral wall of the hose has a substantially fixed length in the cross-sectional plane perpendicular to the axis thereof under the impulsive or vibrational pressure disturbances” and that “the hose has a wall construction including interwoven strands configured to be displaced relative to each other during deformation of the cross-sectional shape of the hose and to absorb deformation energy as frictional loss between the strands.” The first part of this amendment is supported by the specification on page 6, lines 20-22, while the second part of the amendment is derived from claims 33 and 47, which have been cancelled.

Pardy fails to disclose or suggest the hose having “a wall construction including interwoven strands configured to be displaced relative to each other during deformation of the cross-sectional shape of the hose and to absorb deformation energy as frictional loss between the strands” as required by amended independent claims 30 and 42. Instead, the fuel pipe in Pardy includes a nylon tube surrounded by rubber-like sheath 34 (pg. 3, lines 10-11). Indeed, Pardy is silent on any form of wall construction that includes interwoven strands and, more particularly perhaps, is silent on such interwoven strands being displaced relative to each other during deformation of the cross-sectional shape of the hose and absorbing deformation energy as frictional loss between the strands during such relative displacement.

Gustafsson does not cure this defect because the reinforcement (i.e., the limiting means 3) of the tube 2 in Gustafsson is inelastic to counteract stretching in the circumferential direction of the tube 2 (see col. 4, line 20). In Gustafsson, the limiting means 3 does not deform by relative displacement of the constructional strands, but is merely present to contain the inner tube 2 from stretching more than “a small amount” when it is expanded by product flowing through it. Col. 7, lines 11 to 21 of Gustafsson define how much the tube is allowed to expand, i.e., less than 5% in the circumferential direction. This is contrary to the claimed invention, where no stretching of the peripheral length of the hose wall occurs.

Moreover, Gustafsson fails to disclose or suggest that “the peripheral wall of the hose has a substantially fixed length in the cross-sectional plane perpendicular to the axis thereof under the impulsive or vibrational pressure disturbances” as required by amended independent claim 30. Instead, the tube 2 in Gustafsson is intended to collapse in order to accommodate a pressure

drop in the tube 2 (see e.g., col. 3, lines 36-38, lines 60-67; col. 4, lines 6-11, lines 42-43; col. 6, lines 57-64; col. 7, lines 1-3, lines 60 to 64). Indeed, by collapsing the peripheral length of the tube 2, the wall cross-section diminishes and, therefore, has a variable length, not a fixed length.

The claims that depend either directly or indirectly from independent claim 30 (i.e., claims 31, 32, 34, 35, and 37-40) and independent claim 42 (i.e., claims 43-44, 46, 48-50, 52, and 55) include patentably distinct limitations and, therefore, are patentably distinct as well. For example, nowhere does Pardy disclose or suggest that “the peripheral wall of the damping hose is arranged to define different cross-sectional areas at different longitudinal positions in response to the impulsive or vibrational pressure disturbances” as required by claim 31. Instead, the variations in cross-sectional area shown in Figure 5 of Pardy are solely due to the fact that the end of the extruded tube 32 is pushed over the circular end of a connecting pipe 36.

For at least these reasons, the 35 U.S.C. § 102(b) rejection to claims 30-32, 34, 35, 37-40, 42-44, 46, 48-50, 52, and 55 is unsupported and should be withdrawn.

Claims 56-57

Independent claim 56 has been amended to require the steps of “providing the peripheral wall of the hose with a substantially fixed length in the cross-sectional plane perpendicular to the axis thereof and not able to effect significant stretching under the impulsive or vibrational pressure disturbances” and “providing the hose with a wall construction including interwoven strands configured to be displaced relative to each other during deformation of the cross-sectional shape of the hose and to absorb deformation energy as frictional loss between the strands.” The first part of this amendment is supported by the specification on page 6, lines 20-22, while the second part of the amendment is supported by the specification on page 6, lines 3-7.

Pardy fails to disclose or suggest the hose having “a wall construction including interwoven strands configured to be displaced relative to each other during deformation of the cross-sectional shape of the hose and to absorb deformation energy as frictional loss between the strands” as required by amended independent claim 56. Instead, the fuel pipe in Pardy includes a nylon tube surrounded by rubber-like sheath 34 (pg. 3, lines 10-11). Indeed, Pardy is silent on any form of wall construction that includes interwoven strands and, more particularly perhaps, is silent on such interwoven strands being displaced relative to each other during deformation of

the cross-sectional shape of the hose and absorbing deformation energy as frictional loss between the strands during such relative displacement.

Gustafsson fails to cure this defect because the reinforcement (i.e., the limiting means 3) of the tube 2 in Gustafsson is inelastic to counteract stretching in the circumferential direction of the tube 2 (see col. 4, line 20). In Gustafsson, the limiting means 3 does not deform by relative displacement of the constructional strands, but is merely present to contain the inner tube 2 from stretching more than “a small amount” when it is expanded by product flowing through it. Col. 7, lines 11 to 21 of Gustafsson define how much the tube is allowed to expand, i.e., less than 5% in the circumferential direction. This is contrary to the claimed invention, where no stretching of the peripheral length of the hose wall occurs.

Moreover, Gustafsson fails to disclose or suggest that “the peripheral wall of the hose has a substantially fixed length in the cross-sectional plane perpendicular to the axis thereof under the impulsive or vibrational pressure disturbances” as required by amended independent claim 56. Instead, the tube 2 in Gustafsson is intended to collapse in order to accommodate a pressure drop in the tube 2 (see e.g., col. 3, lines 36-38, lines 60-67; col. 4, lines 6-11, lines 42-43; col. 6, lines 57-64; col. 7, lines 1-3, lines 60 to 64). Indeed, by collapsing the peripheral length of the tube 2, the wall cross-section diminishes and, therefore, has a variable length, not a fixed length.

For at least these reasons, the 35 U.S.C. § 102(b) rejection with respect to independent claim 56 is unsupported and should be withdrawn. Since claim 57 depends from independent claim 56, the 35 U.S.C. § 102(b) rejection with respect to these claims is also unsupported and should be withdrawn.

35 U.S.C. § 103(a) Rejection of Claims 33 and 47 Based on Pardy in View of Gustafsson

Since claims 33 and 47 have been cancelled without prejudice, the rejection to these claims is now moot and should therefore be withdrawn.

35 U.S.C. § 103(a) Rejection of Claims 36 and 51 Based on Pardy in View of Walsh

As discussed above, claims 36 and 51 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Pardy in view of Walsh. One of the elements necessary to establish a *prima facie* case of obviousness under 35 U.S.C. § 103 is that the prior art reference, or references

when combined, must teach or suggest each and every claim limitation. For at least the following reasons, Applicant traverses this rejection.

First, Pardy fails to disclose or suggest the hose having “a wall construction including interwoven strands configured to be displaced relative to each other during deformation of the cross-sectional shape of the hose and to absorb deformation energy as frictional loss between the strands” as required by claims 36 and 51 for the same reasons as discussed above with respect to independent claims 30 and 42, respectively.

Second, Walsh fails to disclose or suggest that “in the absence of fluid pressure the first wall parts are arranged to contact each other” as required by claims 36 and 51. Instead, Walsh is directed to dewatering hoses that are for use in sub-freezing conditions and includes a water-carrying tube contained within an outer support tube and having a sealed air space in between. In the construction shown in Figure 1, for example, the inner tube 24 is essentially flat, which expands when carrying water so as to compress the air in the spaces 26 either side of the internal tube and, when the tap is turned off, the compressed air in the spaces 26 serves to re-flatten the tube 24 so as to expel any contained water from an open end of the internal tube 24. Walsh is silent with respect to providing a tube design that is configured to prevent noises, vibrations and harshness resulting from pressure pulses or pressure disturbances within high pressure fluid-carrying hoses in automobiles.

For at least these reasons, the rejection to claims 36 and 51 under 35 U.S.C. § 103(a) is unsupported by Pardy in view of Walsh and should be withdrawn.

35 U.S.C. § 103(a) Rejection of Claims 34, 41, 45, 48, 53 and 58 Based on Pardy in View of Ozeki

As discussed above, claims 34, 41, 45, 48, 53 and 58 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Pardy in view of Ozeki. For at least the following reasons, Applicant traverses this rejection.

Pardy fails to disclose or suggest the hose having “a wall construction including interwoven strands configured to be displaced relative to each other during deformation of the cross-sectional shape of the hose and to absorb deformation energy as frictional loss between the strands” as required by claims 34, 41, 45, 48, 53 and 58 for the same reasons as discussed above with respect to independent claims 30, 42, and 56. Ozeki fails to cure this defect as Ozeki

merely discloses an exemplary vehicle steering arrangement embodying a steering rack system and is silent with respect to any discussion, consideration, or proposal of any solutions to the problem of noise or vibration resulting from pressure fluctuations in a hydraulic system.

For at least these reasons, the rejection to claims 34, 41, 45, 48, 53 and 58 under 35 U.S.C. § 103(a) is unsupported by Pardy in view of Ozeki and should be withdrawn.

Conclusion

In view of the remarks above and the amendments presented herein, it is believed that claims 30-32, 34-46, and 48-58 are in condition for allowance and notice to such effect is respectfully requested. If the Examiner thinks a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned at the phone number provided below.

If any fees are due in connection with this Amendment, the Commissioner is authorized to charge Deposit Account No. 02-2051, specifically identifying Docket No. 29390-1.

Respectfully submitted,

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